THE RELATIONSHIP BETWEEN INTEREST TO LEARN AND LEARNING ENVIRONMENT AT HOME WITH MATHEMATICS LEARNING OUTCOMES IN STUDENTS CLASS VIII

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ABSTRACT

Student learning outcomes are related to many factors. Interest to Learn and learning environment at home. This study aims to determine the presence or the lack of a positive and significant relationship among the Interest to Learn And learning environment at home with mathematics learning outcomes for students of class VIII First Semester of Islamic Junior High School (Mts) Al - Mu'min Muhammadiyah Tembarak Teamanggung Regency 2019/2020 Academic Year. This study's population are all the students of class VIII First Semester of Mts Al - Mu'min Muhammadiyah Tembarak Teamanggung Regency 2019/2020 Academic Year, consisting of 2 classes with some 36 students. Trial classes and sample classes are taken by random sampling technique and regular Class VIII II and Class VIII I trial. The data collection technique is carried out by using the test and questionnaire method. The test method is used to collect data on student mathematics learning outcomes. In contrast, the questionnaire method is used to collect data on the Interest to learn and the learning environment at home with a mathematics learning outcome. The instrument test uses a validity test, a different power test, and a reliability test. Analysis prerequisite tests are a normality test, independent test, and linearity test. Data analysis for hypothesis testing uses correlation analysis and linear regression analysis. The results showed a positive and significant impact among the Interest to learn and learning environment at home with mathematics learning outcomes with $F_{count} = 17{,}67717$ and $F_{table} = 3{,}68232$, so $F_{count} > F_{table}$ is obtained. The multiple correlation coefficient (R) of 0,83792 and the coefficient of determination (R^2) of 0,70211 with a linear regression 989 equation that is $\hat{Y} = 200{,}18775 + 2{,}31352X_1 + 0{,}97139\,X_2$ with the relative contribution of X_1 is 35,72480%, and X_2 is 64,27520% and the effective contribution X_1 is 25,08278% and X_2 is 45,12833%.

Keywords: Interest To Learn, the learning environment at home, Mathematics Learning Outcomes.

INTRODUCTION

National education in Indonesia according to the Law of the Republic of Indonesia Number 20 of 2003 as contained in chapter 1 article 1 concerning the National Education System (SISDIKNAS): Education is a conscious and planned effort to create an atmosphere of learning and the learning process so that students actively develop their potential to have religious-spiritual strength, self-control, personality, intelligence, noble character, and skills needed by themselves, society, the nation, and the state. In Indonesia, education is divided into three channels, namely formal education, non-formal education, and informal education. Formal education is an educational path structured and tiered, consisting of primary education, secondary education, and higher education. Madrasah Tsanawiyah (MTs) is one of the formal education programs managed by the Ministry of Religion.

Mathematics is a science that aims to educate students to think critically, rationally, and confidently to form an independent, creative personality and have the ability and courage to face problems in everyday life. Students' ability to learn mathematics can be measured through mathematics learning outcomes. These results can indicate the level of student mastery of the mathematics subjects they are learning. The definition of mathematics from various experts in Suherman, Erman et al. (2003: 16-17) Opinion Russefendi "mathematics is formed from human thought related to ideas, processes, and reasoning.

According to Slameto (2013: 54): The learning outcomes level is influenced by two factors, namely internal and external factors. Internal factors exist within the individual, including intelligence, attention, interests, talents, motives, maturity, and readiness. At the same time, external factors exist outside the individual, including environment, learning facilities, parental attention, weather, teachers, community, etc. According to Dimyati and Mujiyono (2009: 113), learning is a daily activity for school students. As happened at MTs Al Mukmin Muhammadiyah Tembarak Temanggung, the mathematics learning outcomes of students who can achieve a score above the Minimum Completeness Criteria set by the school, namely 64, are very few. Whereas the average daily test was still low because all students, both Class VIII Regular I and Class Regular II, still scored below the MCC. Several factors influence poor mathematics learning outcomes. This study only takes two variables as internal factors and external factors that may influence mathematics learning outcomes.

Interest is an essential factor in learning mathematics. If students have a high interest in learning, the learning outcomes are good. If the Interest in learning is low, the student learning outcomes are not good. It means that Interest in learning is very influential on student learning outcomes. According to Susanto, Ahmad (2013: 58), "Interest is an impetus in a person or a factor that causes Interest or attention effectively, which causes an object or activity to be chosen that is profitable, enjoyable, and over time will bring satisfaction to him. According to Khairani, Makmun (2014: 137), "Interest is a psychological symptom which shows that interest is the subject's understanding of the object being the target because the object attracts attention and causes feelings of pleasure so that it tends to the object." Based on several definitions of Interest, according to these experts, it can be concluded that Interest is an impulse in a person that causes Interest or attention virtually to a certain object so that over time it will bring satisfaction to him.

The learning environment at home is also an important element in the learning process. The environment directly affects a person's attitude, behavior, and personality. According to Hamalik, Oemar (2014: 195-196), The environment (environment) as the basis of teaching is a conditional factor that affects individual behavior and is an important learning factor. Learning does not only depend on the school but also determined by the social environment outside school, including the home's family learning environment. Family is the first environment known by students. A family is a place where children's education takes place from birth to adulthood. According to Slameto (2013: 60-64), students who learn will receive influence from the family, which is their learning environment at home in how parents educate, relationships between family members, home atmosphere, family economic conditions, understanding of parents and cultural background. From the description above, it can be concluded that the learning environment at home is a habit that exists at home that affects individual behavior and is an important learning factor.

This study's objectives are: (1) To determine whether or not there is a positive and significant relationship between Interest in learning and mathematics learning outcomes of grade VIII students at MTs Al Mukmin Muhammadiyah Tembarak Temanggung Odd Semester for the 2019/2020 academic year. (2) To determine whether or not there is a positive and significant relationship between the learning environment at home and the mathematics learning outcomes of grade VIII students at MTs Al Mukmin Muhammadiyah Tembarak Temanggung Odd in the 2019/2020 academic year. (3) To determine whether or not there is a positive and significant relationship between Interest in learning and the learning environment at home with the mathematics learning outcomes of class VIII students of MTs Al Mukmin Muhammadiyah Tembarak Temanggung Odd for the 2019/2020 academic year.

METHODS

This research is a correlation study. The research method used is quantitative research methods (Sugiyono, 2012: 14). This study's population was all class VIII students of MTs Al Mukmin Muhammadiyah Tembarak Temanggung Odd Semester for the 2019/2020 academic year, which consisted of 2 classes. In this study, the sample was taken using a random sampling technique to the class. That is, 1 class was taken randomly by way of a class draw, without considering the population's strata.

The class taken as the sample class was class VIII A with 18 students. The data collection technique used was a questionnaire technique with an instrument in the form of a questionnaire and a test technique in multiple-choice objective questions. The prerequisite analysis test was the normality test with the Chi-Square formula, the linearity test of the F-test formula, and the independence test of the Chi-Square formula. The research hypothesis test used a simple regression analysis test and multiple regression analysis with one independent variable. The research hypothesis test using simple regression analysis was conducted to determine whether there was a positive and significant relationship between (1) interest in learning and student mathematics learning outcomes. (2) the learning environment at home with mathematics learning outcomes. Furthermore, the research hypothesis test uses multiple regression analysis to determine whether there is a positive and significant relationship between Interest in learning and the learning environment at home with student mathematics learning outcomes.

RESULT AND DISCUSSION

Based on the research that has been done, it was obtained data about, Interest in learning and the learning environment at home on mathematics learning outcomes in class VIII students of MTs Al Mu'min Muhammadiyah Tembarak Temanggung.

The normality test is used to test the distribution of data obtained on each of the variables with normal distribution or not. The normality test in this study used the chi-squared (2) statistical test. The decision-making criteria used is the distribution of data obtained on each variable with a normal distribution of $X^2_{count} < X^2_{table}$ with a significant level of 5% and degrees of freedom (k-1) where k is the many interval classes. The results of the normality test for the three variables. Based on the normality test that has been carried out, it was found that the three variables, namely Interest in learning, the learning environment at home, and student mathematics learning outcomes were usually distributed. The summary of normality test results can be seen in Table 1.

Table 1. Summary of Normality Test Results

Variable	χ^2_{count}	χ^2_{table}	DF	Info
X_1	3,63757	7,81473	3	Normal
X_2	2,06780	7,81473	3	Normal
Y	1,95153	7,81473	3	Normal

From table 1 show that the normality test at the 5% significance level. It can be seen that $\chi^2_{count} < \chi^2_{table}$ means that the distribution of data obtained on each variable is normally distributed.

The independent test is used to determine whether there is a relationship between the independent variable of interest in learning (X_1) and the home's learning environment (X_2). Based on the research that has been done, it was found that between the independent variables, namely Interest in learning and the learning environment at home. The summary of the results of the independence test can be seen in Table 2.

Table 2. Summary of Independence Test Results

Variable	χ^2_{count}	χ^2_{table}	DF	Info
X_1 and X_2	28,536	37,652	25	Independent

Table 2 show that the independence test at a significant level of 5% ($\alpha = 0.05$) and degrees of freedom (DF) = k-1) (b-1), it can be seen that $\chi^2_{count} \leq \chi^2_{table}$, this means that the distribution of data obtained at each - each variable is mutually dependent.

The linearity test is used to determine whether the independent variable and the dependent variable have a linear relationship or not by using a linear regression formula (F-test). The decision-making criterion is the relationship between variable X and variable Y linear if $F_{count} \leq F_{table}$. Based on the research done, it was found that between the independent and dependent variables, Interest in learning with mathematics learning outcomes and the learning environment at home with learning outcomes of

learning mathematics, there is a linear relationship. The summary of the linearity test results can be seen in Table 3.

Tabel 3 The summary of the linearity test results

Variable	F_{count}	F_{table}	Info
X_1 and Y	0,27291	5,91172	Linear
X_2 and Y	3,16721	3,67667	Linear

Table 3 show that linearity test at a significant level of 5% ($\alpha = 0.05$) and the degrees of freedom v_1 of the k-2 numerator and v_2 of the denominator, it can be seen that $F_{count} \leq F_{table}$ (1-α) (k-2, Nk)), this means that there is a linear relationship between the independent variable (X) and the dependent variable (Y).

The summary of the results of the first hypothesis test can be seen in Table 4.

Table 4. Summary of the First Hypothesis Test Results

t_{count}	t_{table}	DF	Info
2,22133	1,74590	16	H_0 is rejected, H_1 is accepted

Table 4 show that the test of the first hypothesis at a significant level of 5% and DF = 16, it can be seen that t_{count} = 2.22133 and t_{table} = 1.74590 so that $t_{count} > t_{table}$, which means that there is a positive and significant relationship between Interest in learning and learning outcomes in class students' mathematics learning VIII MTs Al Mu'min Muhammadiyah Temabarak Temanggung Academic Year 2019/2020.

The summary of the results of the second hypothesis test can be seen in Table 5.

Table 5. Summary of Second Hypothesis Test Results

t_{count}	t_{table}	DF	Info
2,64515	1,74590	16	H0 is rejected, H1 is accepted

Table 5 show that the second hypothesis test at a significant level of 5% and DF = 16, it can be seen that t_{count} = 2.64515 and t_{table} = 1.74590 so that $t_{count} > t_{table}$, which means that there is a positive and significant relationship between learning at home and learning outcomes in mathematics learning VIII grade students of MTs Al Mu'min Muhammadiyah Tembarak Temanggung for the 2019/2020 academic year.

The summary of the results of the third hypothesis test can be seen in Table 6.

Table 6. Summary of the Third Hypothesis Test Results

F_{count}	F_{table}	DF	Info
17,67717	3,68232	$v_1 = 2$ $v_2 = 16$	H_0 is rejected, H_1 is accepted

Table 6 show that the third hypothesis test at a significant level of 5%, the numerator v_1 = 2 and the denominator v_2 = 16 so that it can be obtained F_{count} = 17.67717 and F_{table} = 3.68232 so that $F_{count} \geq F_{table}$ which means there is a positive and significant relationship between Interest in learning and the environment studying at home with learning outcomes in mathematics learning for class VIII students of MTs Al Mu'min Muhammadiyah Tembarak Temanggung Academic Year 2019/2020.

The relative and effective contributions for each variable X_1, X_2 can be seen in Table 7.

Table 7. Summary of Results of Relative Contribution and Effective Contribution

Variable	Relative Contribution (%)	Effective Contribution (%)
X_1	35,72480 %	25,08278 %
X_2	64,27520 %	45,12833 %

CONCLUSION

Based on the analysis of experimental data and discussion, this activity concludes the following:

1. There is a positive and significant relationship between Interest in learning and student mathematics learning outcomes. This is indicated by the t-test obtained $t_{count} = 2{,}22133$ dan $t_{table} =$

$1{,}74590$ so $t_{count} > t_{tabel}$ at a significant level of 5%, and DF = 16. Equations of linear regression namely $\hat{Y} = 79{,}003 + 0{,}341X_1$. This shows that the better the student's interest in learning, the higher their mathematics learning outcomes.

2. There is a positive and significant relationship between learning motivation and students' mathematics learning outcomes. This is indicated by the t-test obtained $t_{count} = 2{,}64515$ and $t_{table} = 1{,}74590$ so $t_{count} > t_{table}$ that at a significant level of 5%, and DF = 16. Linear Regression Equations $\hat{Y} = 185{,}101 + 1{,}373X_2$. This shows that the more conducive the learning environment at home is, the higher its mathematics learning outcomes.
3. There is a positive and significant relationship between Interest in learning and the learning environment at home with mathematics learning outcomes. The F-test indicates this obtained $F_{count} = 17{,}67717$ and $F_{table} = 3{,}68232$, so $F_{count} > F_{table}$ at a significant level of 5%, with DF numerator = 2 and DF denominator = 16. Linear Regression Equations $\hat{Y} = 200{,}18775 + 2{,}31352X_1 + 0{,}97139X_2$. This shows that the higher the interest in learning and the learning environment at home, the higher its mathematics learning outcomes.

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